

ABSTRACT

A computer calculates the shape of a figure after transformation using an approximate expression previously set for correcting a projected
5 image for distortion associated with the shape of a projection surface of a cylindrical screen (an equation representative of a parabola in this case), a variable for horizontal transformation and a variable for vertical transformation which are entered through a user interface for transforming the approximate expression, and/or a variety of parameters required for transformation of image
10 and optical corrections such as the optical center, linearity, amplitude, and position. A projector scales up or down pixels to produce a transformed image from the calculated figure after transformation for projection onto the cylindrical screen.